

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Number : TBA Confirmation No.: TBA
Applicant : Kathleen D'HALLUIN et al.
International Filing Date : November 17, 2004
Title : IMPROVED TARGETED DNA INSERTION IN PLANTS
TC/Art Unit : TBA
Examiner: : TBA
Docket No. : 58764.000062
Customer No. : 21967

MAIL STOP PCT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.97 and 1.98, and in compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, Applicants submit the attached Form PTO-SB/08B (modified) for consideration and request the documents cited therein be made of record by the U.S. Patent and Trademark Office in the above-captioned application.

Some of the documents listed on the attached Form PTO-SB/08B were cited by the European Patent Office in the International Search Report and the Written Opinion of the International Searching Authority, dated June 6, 2005, for International Application No. PCT/EP2004/013122. A copy of the International Search Report and the Written Opinion of the International Searching Authority is enclosed herein.

Applicants respectfully point out that the submission of the listed references in this Information Disclosure Statement is not an admission that they are prior art or that they are material to patentability of any claims of the application. Also, the submission of this Information Disclosure Statement is not an indication that a search has been made by Applicants.

For the convenience of the Examiner in considering the cited references, a copy of each of the cited references is enclosed with this communication. In considering the cited references, it may be noted by the Examiner that certain of the references may contain markings, underlinings, and/or other notations. These markings, underlinings, and/or other notations are not

to be construed as drawing the Examiner's attention either to selected parts or away from other parts of the cited references. Any such markings were either present on the copies of the cited references obtained by the associated individuals, or were made thereon during the study of the references by the associated individuals.

As this application was filed after June 30, 2003, copies of U.S. patents and/or U.S. patent application publications for national stage applications under 35 U.S.C. 371 cited on the attached Form PTO-SB/08A (modified), are not being provided as specified in 1276 O.G. 55 (5 August 2003).

Consideration of the foregoing plus the prompt return of a copy of the enclosed Form SB/08A with the Examiner's initials in the left column in accordance with MPEP 609 are respectfully requested.

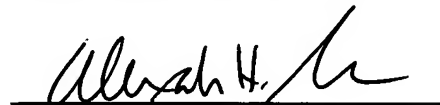
In accordance with 37 C.F.R. § 1.97(b), this Information Disclosure Statement is believed to be submitted prior to issuance of a first Office Action. Therefore, it is respectfully submitted that no fee is required for consideration of this information. However, in the event any fee is deemed necessary, the Commissioner is authorized to charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: May 18, 2006

By:



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TBA

November 17, 2004

Kathleen D'HALLUIN et al.

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	TBA
		International Filing Date	November 17, 2004
		First Named Inventor	Kathleen D'HALLUIN et al.
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FOREIGN PATENT DOCUMENTS

*Examiner Initial	Cite No.	FOREIGN PATENT DOCUMENT		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	TRANSLATION	
		Country Code Number-Kind Code (if known)					YES	NO
	2.	EP	0 242 236 A1	10-21-1987	Leemans, et al.		<input type="checkbox"/>	<input type="checkbox"/>
	3.	EP	0 242 246 A1	10-21-1987	Leemans, et al.		<input type="checkbox"/>	<input type="checkbox"/>
	4.	EP	0 317 509 A2	05-24-1989	Paszkowski, et al.		<input type="checkbox"/>	<input type="checkbox"/>
	5.	WO	94/01560 A1	01-20-1994	Griffith, et al.		<input type="checkbox"/>	<input type="checkbox"/>
	6.	WO	94/17176 A1	08-04-1994	Hodges, et al.		<input type="checkbox"/>	<input type="checkbox"/>
	7.	WO	94/18313 A1	08-18-1994	Chandrasegaran		<input type="checkbox"/>	<input type="checkbox"/>
	8.	WO	95/09233 A1	04-06-1995	Chandrasegaran		<input type="checkbox"/>	<input type="checkbox"/>
	9.	WO	96/14408 A2	05-17-1996	Choulika, et al.		<input type="checkbox"/>	<input type="checkbox"/>
	10.	WO	00/46386 A2	08-10-2000	Choulika, et al.		<input type="checkbox"/>	<input type="checkbox"/>
	11.	WO	03/004659 A2	01-16-2003	Puchta, et al.		<input type="checkbox"/>	<input type="checkbox"/>
	12.	WO	03/054189 A2	07-03-2003	Biesgen		<input type="checkbox"/>	<input type="checkbox"/>
	13.	WO	03/080809 A2	10-02-2003	Liljedahl, et al.		<input type="checkbox"/>	<input type="checkbox"/>
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Sheet	3 of 5	Attorney Docket Number	58764.000062

OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS

*Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	TRANSLATION	
			YES	NO
	14.	Ashby, et al. "Ti Plasmid-Specified Chemotaxis of <i>Agrobacterium tumefaciens</i> C58C ¹ toward vir-Inducing Phenolic Compounds and Soluble Factors from Monocotyledonous and Dicotyledonous Plants", Journal of Bacteriology, Vol. 170, No. 9, September 1988, pg. 4181-4187.	<input type="checkbox"/>	<input type="checkbox"/>
	15.	Bolton, et al., "Plant Phenolic Compounds Induce Expression of the <i>Agrobacterium Tumefaciens</i> Loci Need for Virulence", Science, Vol. 232, pg. 983-985, 1986.	<input type="checkbox"/>	<input type="checkbox"/>
	16.	Chalfie, et al., "Green Fluorescent Protein as a Marker for Gene Expression", Science, Vol. 263, pg. 802-805, February 11, 1994.	<input type="checkbox"/>	<input type="checkbox"/>
	17.	Chilton and Que, "Targeted Integration of T-DNA into the Tobacco Genome at Double-Stranded Breaks: New Insights on the Mechanism of T-DNA Integration", Plant Physiology, Vol. 133, pg. 956-965, November 2003.	<input type="checkbox"/>	<input type="checkbox"/>
	18.	Choulika, et al., "Induction of Homologous Recombination in Mammalian Chromosomes by Using the I-SceI System of <i>Saccharomyces Cerevisiae</i> ", Molecular and Cellular Biology, Vol. 15, No. 4, pg. 1968-1973, April 1995.	<input type="checkbox"/>	<input type="checkbox"/>
	19.	Colleaux, et al., "Recognition and Cleavage Site of the Intron-Encoded <i>omega</i> Transposase", Proc. Natl. Acad. Sci. USA, Vol. 85, pg. 6022-6026, August 1988.	<input type="checkbox"/>	<input type="checkbox"/>
	20.	Crameri, et al., "Improved Green Fluorescent Protein by Molecular Evolution Using DNA Shuffling", Nature Biotechnology, Vol. 14, pg. 315-319, March 1996.	<input type="checkbox"/>	<input type="checkbox"/>
	21.	De Block, et al., "Engineering Herbicide Resistance in Plants by Expression of a Detoxifying Enzyme", The EMBO Journal, Vol. 6, No. 9, pg. 2513-2518, 1987.	<input type="checkbox"/>	<input type="checkbox"/>
	22.	Fennoy, et al., "Synonymous Codon Usage in <i>Zea mays</i> L. Nuclear genes is Varied by levels of C and G-ending Codons", Nucleic Acids Research, Vol. 21, No. 23, pg. 5294-5300, 1993.	<input type="checkbox"/>	<input type="checkbox"/>
	23.	Guivarc'h, et al., "Localization of Target Cells and Improvement of <i>Agrobacterium</i> -mediated Transformation Efficiency by Direct Acetosyringone Pretreatment of Carrot Root Discs", Protoplasma, Vol. 174, pg. 10-18, 1993.	<input type="checkbox"/>	<input type="checkbox"/>
	24.	Isalan, et al., "A Rapid, Generally Applicable Method to Engineer Zinc Fingers Illustrated by Targeting the HIV-1 Promoter", Nature Biotechnology, Vol. 19, pg. 656-660, July 2001.	<input type="checkbox"/>	<input type="checkbox"/>

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			YES	NO
	25.	Kalderon, et al., "A Short Amino Acid Sequence Able to Specify Nuclear Location", Cell, Vol. 39, pg. 499-509, December 1984.	<input type="checkbox"/>	<input type="checkbox"/>
	26.	Kawabe and Miyashita, "Patterns of Codon Usage Bias in Three Dicot and Four Monocot Plant Species", Genes Genet. Syst., Vol. 78, pg. 343-352, 2003.	<input type="checkbox"/>	<input type="checkbox"/>
	27.	Krysiak, et al., "Generation of DNA Double-Strand Breaks and Inhibition of Somatic Embryogenesis by Tungsten Microparticles in Wheat", Plant Cell, Tissue and Organ Culture, Vol. 58, pg. 163-170, 1999.	<input type="checkbox"/>	<input type="checkbox"/>
	28.	Kumar and Fladung "Controlling Transgene Integration in Plants", Trends in Plant Science, Vol. 6, No. 4, pg. 155-159, April 2001.	<input type="checkbox"/>	<input type="checkbox"/>
	29.	Liu, et al., "Design of Polydactyl Zinc-Finger Proteins for Unique Addressing within Complex Genomes", Proc. Natl. Acad. Sci. USA, Vol. 94, pg. 5525-5530, May 1997.	<input type="checkbox"/>	<input type="checkbox"/>
	30.	Meyer, et al., "A New Petunia Flower Colour Generated by Transformation of a Mutant with a Maize Gene", Nature, Vol. 330, pg. 677-678, December 17, 1987.	<input type="checkbox"/>	<input type="checkbox"/>
	31.	Murray, et al., "Codon Usage in Plant Genes", Nucleic Acids Research, Vol. 17, No. 2, pg. 477-498, January 25, 1989.	<input type="checkbox"/>	<input type="checkbox"/>
	32.	Paszkowski, et al., "Gene Targeting in Plants", The EMBO Journal, Vol. 7, No. 13, pg. 4021-4026, 1988.	<input type="checkbox"/>	<input type="checkbox"/>
	33.	Perera, et al., "Cytosine Deaminase as a Negative Selective marker for <i>Arbidopsis</i> ", Plant Molecular Biology, Vol. 23, pg. 793-799, 1993.	<input type="checkbox"/>	<input type="checkbox"/>
	34.	Puchta, et al., "Homologous Recombination in Plant Cells is Enhanced by <i>in vivo</i> induction of Double Strand Breaks into DNA by a Site-Specific Endonuclease", Nucleic Acids Research, Vol. 21, No. 22, pg. 5034-5040, 1993.	<input type="checkbox"/>	<input type="checkbox"/>
	35.	Puchta, et al., "Two Different but Related Mechanisms are Used in Plants for the Repair of Genomic Double-Strand Breaks by Homologous Recombination", Proc. Natl. Acad. Sci. USA, Vol. 93, pg. 5055-5060, May 1996.	<input type="checkbox"/>	<input type="checkbox"/>

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			YES	NO
	36.	Raikhel, "Nuclear Targeting in Plants", Plant Physiol., Vol. 100, pg. 1627-1632, 1992.	<input type="checkbox"/>	<input type="checkbox"/>
	37.	Salomon and Puchta, "Capture of Genomic and T-DNA Sequences during Double-Strand Break Repair in Somatic Plant Cells", The EMBO Journal, Vol. 17, No. 20, pg. 6086-6095, 1998.	<input type="checkbox"/>	<input type="checkbox"/>
	38.	Srivastava and Ow, "Biolic Mediated Site-Specific Integration in Rice", Molecular Breeding, Vol. 8, pg. 345-350, 2001.	<input type="checkbox"/>	<input type="checkbox"/>
	39.	Stachel, et al., "Identification of the Signal Molecules Produced by Wounded Plant Cells that Activate T-DNA Transfer in <i>Agrobacterium Tumefaciens</i> ", Nature, Vol. 318, pg. 624-629, December 1985.	<input type="checkbox"/>	<input type="checkbox"/>
	40.	Stougaard, "Substrate-Dependent Negative Selection in Plants Using a Bacterial Cytosine Deaminase Gene", The Plant Journal, Vol. 3, No. 5, pg. 755-761, 1993.	<input type="checkbox"/>	<input type="checkbox"/>
	41.	Tzfira, et al., "Site-Specific Integration of <i>Agrobacterium Tumefaciens</i> T-DNA via Double-Stranded Intermediates", Plant Physiology, Vol. 133, pg. 1011-1023, November 2003.	<input type="checkbox"/>	<input type="checkbox"/>
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